Validation of Flight and Ground Autonomous Scheduling (VFGS)

Completed Technology Project (2016 - 2019)

Project Introduction

Develop formal and informal methods of characterizing performance of flight and ground autonomous scheduling software.

The goal of this effort is to develop methods to better characterize the performance: termination, runtime, memory usage, soundness, completeness, of flight and ground scheduling methods.

Anticipated Benefits

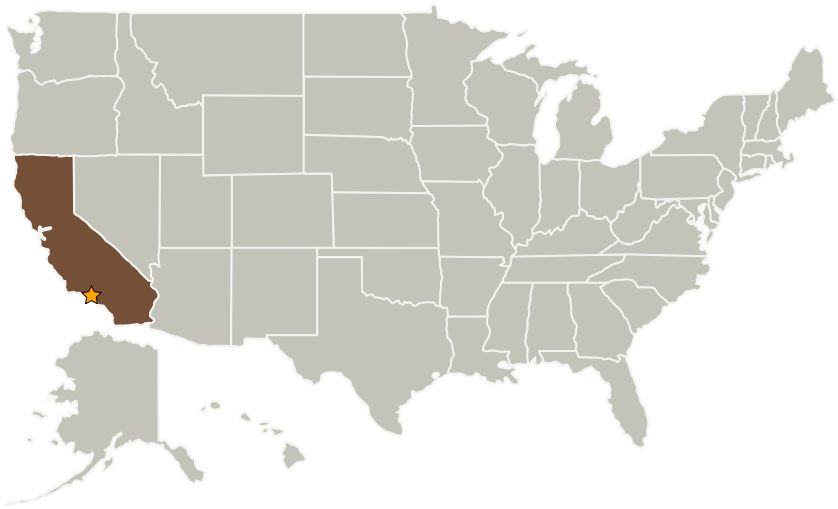
Enable better characterization of autonomous scheduling techniques.

Increased efficiency of a wide range of logistical elements in space exploration and science including but not limited to: space missions, ground communciations stations, logistics, engineering operations, science operations.

Increased performance of wide range of space related systems.

Applies to a wide range of problems for USAF, DoD, NOAA, and others.

Primary U.S. Work Locations and Key Partners



Organizations Performing Work	Role	Type	Location
★Jet Propulsion Laboratory(JPL)	Lead Organization	NASA Center	Pasadena, California

JPL_IRAD_Activities Project

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Primary U.S. Work Locations

California

Images

JPL_IRAD_Activities Project Image
JPL_IRAD_Activities Project
(https://techport.nasa.gov/image/27997)

Organizational Responsibility

Responsible Mission Directorate:
Mission Support Directorate (MSD)

Lead Center / Facility:
Jet Propulsion Laboratory (JPL)

Responsible Program:
Center Independent Research & Development: JPL IRAD

Project Management

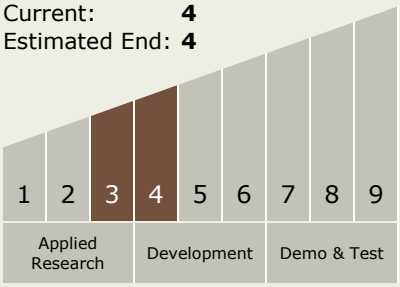
Program Manager:
Fred Y Hadaegh

Project Manager:
Fred Y Hadaegh

Principal Investigator:
Steve A Chien

Technology Maturity (TRL)

Start: **3**
Current: **4**
Estimated End: **4**



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Technology Areas

Primary:

- TX10 Autonomous Systems
  - TX10.4 Engineering and Integrity
    - TX10.4.1 Verification and Validation of Autonomous Systems

Target Destinations

Earth, The Moon, Others Inside the Solar System

Supported Mission Type

Push